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DOE/EIA-0466 Distribution Category UC-98

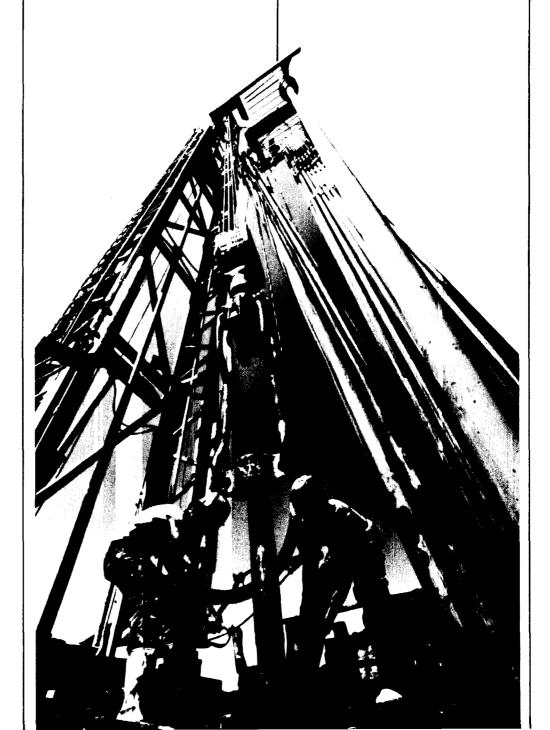
Profiles of Foreign Direct Investment in U.S. Energy 1983



Published: February 1985

Energy Information Administration

Office of Energy Markets and End Use U.S. Department of Energy Washington, D.C. 20585



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Preface

Pursuant to Section 657, Subpart 8, of the Department of Energy Organization Act, the Energy Information Administration (EIA) prepares an annual report, for the Secretary of Energy and transmittal to Congress, summarizing the activities in the United States by companies which are foreign-owned or controlled and which own or control U.S. energy sources and supplies.

This report presents profiles of foreign direct investment in U.S. petroleum (including natural gas production); foreign-affiliated companies' energy production, processing, distribution, and reserves; and foreign-affiliated energy companies' financial performance and investment activity in 1983. Additionally, profiles of U.S. companies' energy operations abroad and comparisons of foreign-affiliated companies to U.S. energy companies are presented. The information is intended for use by the Congress, Government agencies, industry analysts, international trade and finance analysts, and the public.

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Executive Summary

According to a Congressional report on foreign investment 1

The Congress and the public have expressed serious concerns about the impact and effects of foreign investment in the United States. They are concerned about the possibility that, if the assets or the natural resources of large U.S. firms end up under foreign control, those firms could be operated in ways ultimately harmful to U.S. national interests. These concerns arise out of the reports of foreign takeovers of high technology U.S. firms, acquisitions of U.S. farmland, investment in U.S. banks and government securities, and large foreign purchases of U.S. energy and other natural resources with the concomitant export of these scarce resources. Some of these concerns may be unfounded, but it is self-evident that both the Congress and the public must be fully apprised of the impact and effects of foreign investment to make these judgments.

These concerns extend specifically to involvement of foreign interests in U.S. energy as evidenced by Section 657, Subpart 8, of the Department of Energy Organization Act (Public Law 95-91), which requires that the Secretary of Energy report to the President for transmittal to Congress:

...to the extent practicable, a summary of activities in the United States by companies or persons which are foreign owned or controlled and which own or control United States energy sources and supplies, including the magnitude of annual foreign direct investment in the energy sector in the United States...

The Energy Information Administration (EIA) annually prepares the report pursuant to the legislative requirement. Previous versions of the report have appeared as Appendix A in the U.S. Department of Energy Secretary's Annual Report to Congress. The report on foreign involvement in U.S. energy for 1983 is being made available by the EIA in published form in order to make the information contained in it available on as timely a basis as possible.

This report profiles the role of foreign ownership in U.S. energy with respect to investment, energy operations, and financial performance. Data from the EIA, Department of Commerce, company annual reports, and public disclosures of investment transactions are utilized.

Committee on Government Operations, The Adequacy of the Federal Response to Foreign Investment in the United States (August 1, 1980), p. 2.

Highlights of the information in this report are given below:

The foreign direct investment position (FDI)² in U.S. petroleum³ was \$18.5 billion in 1983, a 5.1 percent increase from the 1982 level. In recent years FDI in petroleum has not kept pace with total FDI in the United States. This was largely because of decreased profit expectations stemming from declines in crude oil prices in the 1981-83 period. As a share of total FDI in the United States, petroleum FDI fell from 14.7 percent in 1980 to 13.7 percent in 1983.

European and Canadian interests accounted for over 90 percent of petroleum FDI in 1983, as they have since at least 1976. However, a shift between these two areas has occurred in recent years. The share of petroleum FDI traceable to European ownership interests rose from 83 percent in 1980 to 90 percent in 1983. Over the same period, Canadian ownership interests declined from 15 percent to 7 percent. This decline is related to changes in Canadian energy policy which encourage ownership by Canadians of Canadian energy enterprises.

Based on public disclosures of foreign-affiliated U.S. energy companies, 1983 was a year of reduced FDI-related transactions in U.S. energy. Unlike previous years, energy property acquisitions, rather than equity acquisitions, accounted for a majority (56 percent) of the value of transactions. This development in part reflects heightened leasing of Federal and State lands for oil and gas exploration in 1983.

The aggregate return on equity of foreign-affiliated U.S. energy companies declined from 13.3 percent to 10.6 percent between 1982 and 1983. Their return on equity in 1983 was little different from the 10.5 percent return evidenced by other U.S. energy companies.

In U.S. oil and natural gas operations the share of oil reserves owned by U.S. affiliates of foreign entities declined slightly from 17 percent at the end of 1981 to 15.5 percent at the end of 1983, to 5.5 billion barrels, while the share of dry natural gas reserves declined from 8.8 percent to 8.6 percent, to 17.1 trillion cubic feet. Oil production of U.S. affiliates declined from 14.1 percent of total U.S. production in 1981 to 12.9 percent in 1983 while their share of dry natural gas production rose slightly from 5.6 percent to 5.8 percent. These declines are almost entirely accounted for by a redetermination of Standard Oil Company of Ohio's share of Prudhoe Bay reserves and E.I. Du Pont de Nemour's sale of certain oil and gas properties subsequent to their merger with Conoco.

The number of refineries and refinery capacity of foreign-affiliated U.S. companies relative to the U.S. total remained virtually unchanged between 1981

FDI is the cumulative net flow of funds between a foreign-affiliated company and its foreign owners. The United States Department of Commerce, the agency that collects data on FDI, measures FDI as the book value of foreign parents' equity in, and net outstanding loans to, their U.S. affiliates. The Department of Commerce defines a U.S. affiliate as a U.S. business enterprise in which one foreign person owns, directly or indirectly, 10 percent or more of the voting securities or the equivalent.

³For purposes of reporting FDI, petroleum includes oil and gas production and petroleum refining.

and 1983 at 12 percent and 14.5 percent, respectively. Over the same period, their share of gasoline supplied declined from 16.9 percent to 15.4 percent.

A series of mergers and acquisitions increased the share of U.S. bituminous and lignite production of foreign-affiliated U.S. companies from 3.8 percent in 1980 to 16.2 percent in 1982. In 1983, a year of little acquisition activity, their share declined slightly to 15.9 percent.

The share of foreign-funded uranium exploration expenditures in the United States rose steadily over the 1976-82 period, from 8 percent to 20 percent. In 1983, foreign-funded uranium exploration expenditures fell 67 percent from the prior year while the rest of the industry's expenditures declined 46 percent, resulting in a decline in the foreign-funded share to 13 percent.

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1. Introduction

This report is prepared pursuant to Section 657, Subpart 8, of the Department of Energy Organization Act (Public Law 95-91). This Act requires that the Secretary of Energy report to the President for transmittal to Congress:

... to the extent practicable, a summary of activities in the United States by companies or persons which are foreign owned or controlled and which own or control United States energy sources and supplies, including the magnitude of annual foreign direct investment in the energy sector in the United States ...

The focus of this report is upon the changing patterns of foreign ownership interest, exclusive of portfolio investment, in U.S. energy enterprises. Throughout this report such foreign non-portfolio ownership interests in U.S. energy companies are referred to as "foreign direct investment" (FDI) and the U.S. energy companies in which a foreign entity holds ownership interest are referred to as "foreign-affiliated" U.S. enterprises or companies.

By definition, 1 "... a U.S. affiliate is a U.S. business enterprise in which one foreign person owns, directly or indirectly, 10 percent or more of the voting securities or the equivalent ... in the company. It should be noted that holding 10 percent or more of a company's voting stock does not necessarily constitute control of that company. The determination of control is a complex and often subjective process in which many factors other than the percentage of ownership must be considered.

The involvement of foreign-affiliated U.S. companies in domestic petroleum production, reserve holdings, refining and marketing activities, and coal production is profiled. In addition, information on foreign activity in the U.S. uranium industry is presented. A financial profile of U.S. energy companies that are foreign-affiliated is presented with comparisons of 1982 and 1983 results. Capital and income flows in petroleum between the foreign owners and the foreign-affiliated U.S. companies and the international composition of ownership are reported. In addition, recent acquisitions of ownership interests in U.S. energy companies by foreign persons are summarized.

U.S. Department of Commerce, Bureau of Economic Analysis, <u>Survey of Current Business</u> (August 1983). Also, it should be noted that, consistent with its definition, <u>FDI activities portrayed</u> throughout this report do <u>not</u> include any foreign investment activities in connection with less than 10 percent ownership.

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2. Foreign Direct Investment in U.S. Petroleum

The information on foreign direct investment (FDI) in the United States is derived from quarterly reports to the Department of Commerce required of foreign-affiliated U.S. enterprises. The major foreign-affiliated U.S. energy companies identified by the Department of Energy (DOE) are Shell Oil (U.S.), Standard Oil of Ohio (British Petroleum), E. I. Du Pont de Nemours and Company, and American Petrofina.

FDI is the cumulative net flow of funds between a foreign-affiliated company and its foreign owners. These capital flows consist of stock purchases and paid-in capital, retained earnings and other equity, and loans from and to the foreign parents. The change in FDI is not a measure of capital expenditures in the United States by foreign-affiliated U.S. companies. It is a measure of the net flow of capital between the foreign entities and their U.S. affiliates. It should be emphasized that investment flows out of as well as into the United States. As is discussed in the next section, U.S. direct investment abroad generally far exceeds FDI in the United States.

Energy sources other than petroleum are not separately distinguished by the Department of Commerce in their report on FDI. For reporting purposes, petroleum consists of crude oil (including natural gas liquids), natural gas production, integrated refining, and marketing. Information on the role of foreign-affiliated companies in petroleum and other U.S. energy areas is presented in the next chapter.

Foreign Direct Investment and Rates of Return in U.S. Petroleum

The total value of FDI in the United States equaled \$135.3 billion at year-end 1983. FDI in the U.S. petroleum industry totalled \$18.5 billion. This represents a 5.1-percent increase from the 1982 level of \$17.6 billion (see Table 1). The petroleum share of overall FDI, 13.7 percent in 1983, was slightly below the 14.2-percent share of 1982. Direct foreign petroleum investment by U.S. companies was \$59.8 billion in 1983. It grew by 5.7 percent in 1983, which was less than the 6.4-percent growth exhibited in 1982. Overall direct investment abroad for U.S. firms increased a slight 2 percent in 1983, after having fallen 3 percent in 1982, the first decline registered since just after World War II. As a result, the petroleum share of U.S. foreign investment rose somewhat. The value of U.S. petroleum investment abroad far exceeds the value of foreign investment within the United States. Direct foreign petroleum investment by U.S. companies compared to FDI in U.S. petroleum has been declining in relative terms, though. In 1980, the ratio was 3.9, while in 1983 the ratio was 3.2.

Beginning with the 1983 reporting year, the Bureau of Economic Analysis of the Department of Commerce benchmarked FDI data to their 1980 benchmark survey. This revision in the FDI data series caused large revisions in the overall FDI series for the years 1980-82 but had little effect on the FDI in U.S. petroleum series (although revisions and reclassifications, apart from the benchmarking, did have some effect on earlier published data for petroleum FDI).

Table 1. Foreign Direct Investment in U.S. Petroleum and U.S. Direct Investment in Foreign Petroleum, 1980-83

Year	FDI in U.S. Petroleum	Total FDI in U.S.	Percent Petroleum of Total	U.S. Direct Investment in Foreign Petroleum	U.S. Direct Investment Abroad	Percent Petroleum of Total
	(billio	n dollars)		(billion	dollars)	
1980	12.2	83.0	14.7	47.6	215.4	22.1
1981	15.2	107.6	14.1	53.2	228.3	23.3
1982	17,6	123.6	14.2	56.6	221.5	25.6
1983	18,5	135.3	13.7	59.8	226.1	26.4

^aPetroleum Industry: includes all phases of petroleum exploration, production, refining, transport, and marketing.

The Foreign Direct Investment (FDI) position is the value of foreign parents' net equity in, and outstanding loans to, U.S. affiliates at year-end.

The value of U.S. parents' net equity in and loans to foreign affiliates.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (October 1984).

Additions to FDI is a measure of year-to-year investment flows between foreign entities and their U.S. affiliates. Figure 1 shows that additions to FDI in U.S. petroleum fell subsequent to the peak year of 1981. This decline appears related to the decline in real crude oil prices. These movements are strongly affected by the expected profitability of investments in petroleum. While the average U.S. wellhead price of crude oil fell from \$31.77 per barrel to \$26.19 per barrel, or 18 percent, between 1981 and 1983, additions to FDI in petroleum fell 72 percent over the same period. Also, as Figure 1 indicates, additions to U.S. direct investment abroad were negatively affected by crude oil price declines in the 1981-83 period.

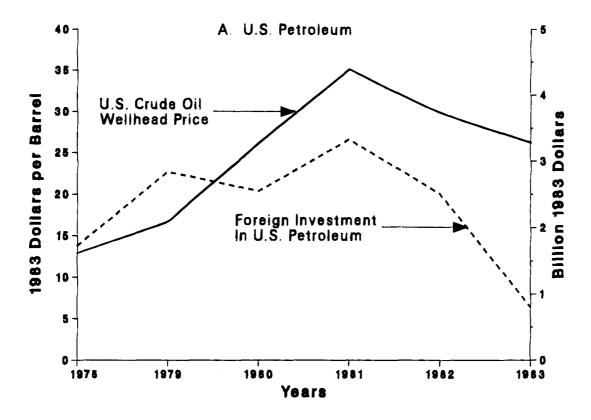
Other factors also contributed to the decline in additions to FDI in U.S. petroleum. The continued strengthening of the dollar through 1983 raised the cost to foreigners of investment in the United States. In Europe, economic recovery was relatively slight, with the result that growth in funds for all

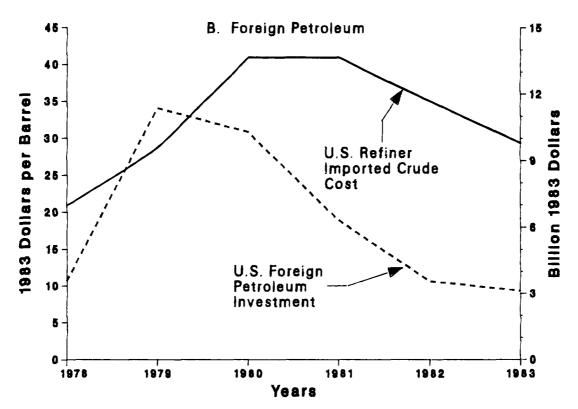
³The following display indicates that additions to U.S. direct investment abroad in petroleum were somewhat affected by the institution of Canada's energy policy in 1981 (a subject discussed in the next section), although the general downward movement remains:

Additions to U.S. Direct Investment				
Abroad in Petroleum	1980	1981	1982	1983
		(billion d	ollars)	
Total	8.5	5.7	3.4	3.1
Canada	1.8	-0.1	-0.3	0.5
Total less Canada	6.6	5.8	3.7	2.6

²Energy Information Administration, <u>Monthly Energy Review</u> (August 1984), p. 89.

Figure 1. Additions to Foreign Investment Position and Crude Oil Prices





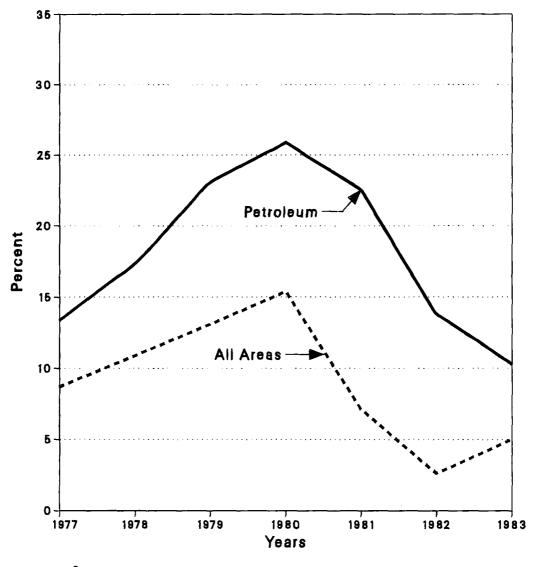


Figure 2. Rates of Return on Foreign Direct Investment in the United States^a

^a Defined as annual income from foreign direct investment accruing to foreign parents divided by the average of beginning-year FDI position of foreign parents.

investment was slight. Almost 90 percent of FDI in U.S. petroleum is traceable to European investors.

The contrast between profitability of FDI in U.S. petroleum and FDI in the United States generally is shown in Table 2 and Figure 2. The rate of return on petroleum FDI has been clearly higher than the return on FDI overall. However, the U.S. economic recovery that pervaded 1983 tended to have a relatively more favorable effect on industries other than petroleum. Although U.S corporate profitability rebounded in 1983, the profit gains in petroleum were comparatively slight. In 1983, U.S. petroleum earnings were adversely affected by lower crude oil prices, decreased natural gas production, and lower inventory profits as compared to prior years. As a consequence of these developments, the gap between the rate of return on FDI in U.S. petroleum and overall FDI narrowed in 1983.

Sources of Foreign Direct Investment in U.S. Petroleum

European interests continued to account for over 80 percent of the FDI in U.S. petroleum (see Table 3 and Figure 3). Largely through ownership interests in major U.S. integrated petroleum companies, investors in the Netherlands and the United Kingdom accounted for over three-fourths of all FDI in U.S. petroleum in 1983. The Canadian share of FDI continued to decline in 1983. This decline is in part related to the changes in Canadian energy policy that became effective in 1981. New incentives and opportunities pursuant to greater Canadian ownership of Canadian oil and gas operations increased the attractiveness of investment in Canadian energy for Canadian investors relative to energy investments in the United States. The share of petroleum FDI traceable to Latin America, which includes nodes of financial activity located in the Caribbean area, such as the Netherlands Antilles, has remained relatively stable since 1981.

From Tables 3 and 4, it is evident that OPEC countries' contribution to FDI in petroleum was negligible in 1983. As a share of the OPEC countries' overall FDI position in the United States, petroleum was of little relative importance. However, it should be noted that Kuwait Petroleum Corporation's acquisition of Santa Fe International in 1981, for approximately \$2.5 billion, was apparently classified under the category of "other" by the Department of Commerce even

The rate of return is defined as the foreign investors' income from foreign-affiliated U.S. companies divided by the average of the beginning-of-year and end-of-year balances of the parents' foreign direct investment position. The foreign investors' income from the foreign-affiliated U.S. company is calculated by including its share in net income (after U.S. income taxes) plus net interest paid to the parents' intercompany accounts, less withholding taxes on dividends and interest. This rate of return measure is not directly comparable to rates of return computed from corporate financial data. An analysis of rates of return based on these latter data is provided in Chapter 4.

⁵Among European countries a noticeable shift in FDI positions between the Netherlands and the United Kingdom occurred in 1982. A British petroleum company changed the pattern by which its U.S. assets are held with the result that an estimated \$4.4 billion in FDI position was transferred from the Netherlands to the United Kingdom in the Department of Commerce's FDI accounts. This development was treated as a valuation adjustment and therefore had no effect on the total FDI position in 1982. As shown in Table 3, the Netherlands' share of FDI in petroleum fell from 76.0 percent in 1981 to 46.0 percent in 1982, while the United Kingdom's share increased from -0.8 percent to 30.8 percent.

⁶For a discussion of changes in Canadian energy policy, see Energy Information Administration, Performance Profiles of Major Energy Producers, 1981 (June 1983), pp. 55-58.

Table 2. Rates of Return on Foreign Direct Investment in U.S. Petroleum, 1981-83

		Rates of Return	
Investment Area	1981	1982	1983
		(percent)	
All Areas	7.1	2,6	5.0
Manufacturing		2 a 6 (a)	2.4
Petroleum	22.5	13.8	10.3
Canada	1.4	-17.3	-13.4
Canada Europe	25.2	17.9	13.6
Other	37.6	4.9	-10.7

Less than 0.05 percent.

Europe consists of Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Sweden, Switzerland, and the United Kingdom.

Source: U.S. Department of Commerce, Survey of Current Business (October 1984).

Table 3. Geographical Sources of Foreign Direct Investment in U.S. Petroleum, 1980-83

1980	1981	1982	1983	1980	1981	1982	1983
	(million	dollars)			(percent	of tota	1)
12,200	15,193	17,619	18,458	100.0	100.0	100.0	100.0
		1,509		14.9	11.5	8.6	7.4
10,137	12,854	15,062	16,565	83.1	84.6	85.5	89.7
9,265	11,547	8,100	9.014	75.9	76.0	46.0	48.8
-257	-124	5,429	5,922	-2.1	-0.8	30.8	32.1
	-78	121	-325	-1.9	-0.5	0.7	-1.8
413	622	905	783	3.4	4.1	5.1	4.2
65	51	22	61	0.5	0.3	0.1	0.3
(^d)	(^d)	9	2	(^d)	(^d)	0.1	(^e)
	12,200 1,817 10,137 9,265 -257 -232 413	(million 12,200 15,193 1,817 1,744 10,137 12,854 9,265 11,547 -257 -124 -232 -78 413 622	(million dollars) 12,200	(million dollars) 12,200	(million dollars) 12,200	(million dollars) (percent 12,200 15,193 17,619 18,458 100.0 100.0 1,817 1,744 1,509 1,374 14.9 11.5 10,137 12,854 15,062 16,565 83.1 84.6 9,265 11,547 8,100 9.014 75.9 76.0 -257 -124 5,429 5,922 -2.1 -0.8 -232 -78 121 -325 -1.9 -0.5 413 622 905 783 3.4 4.1 65 51 22 61 0.5 0.3	(million dollars) (percent of total) 12,200 15,193 17,619 18,458 100.0 100.0 100.0 1,817 1,744 1,509 1,374 14.9 11.5 8.6 10,137 12,854 15,062 16,565 83.1 84.6 85.5 9,265 11,547 8,100 9.014 75.9 76.0 46.0 -257 -124 5,429 5,922 -2.1 -0.8 30.8 -232 -78 121 -325 -1.9 -0.5 0.7 413 622 905 783 3.4 4.1 5.1 65 51 22 61 0.5 0.3 0.1

^aEurope consists of Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Sweden, Switzerland, and the United Kingdom.

Latin America consists of Argentina, Brazil, Chile, Colombia, Mexico, Panama, Peru,

Venezuela and other Central America and Latin America countries.

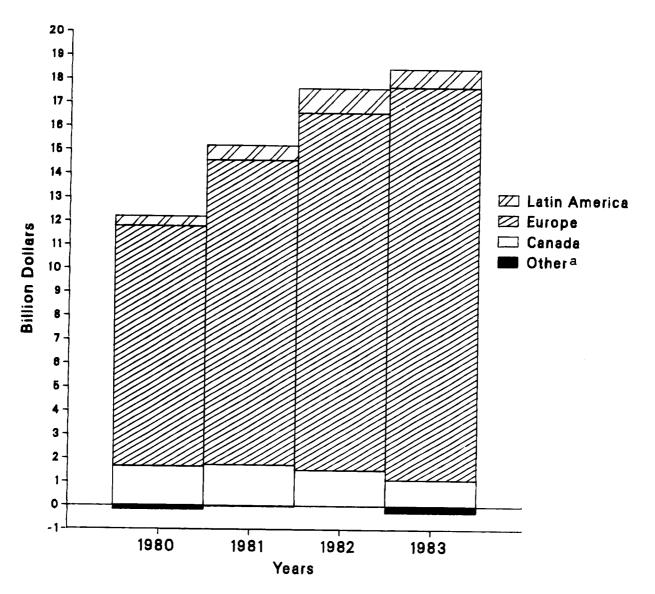
The OPEC countries are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigaria, Qatar, Saudi Arabia, Venezuela, and United Arab Emirates.

Data withheld to prevent disclosure.

eLess than .05 percent.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (October 1984).





a "Other" includes Japan.

though Santa Fe International is a significant oil and gas producer and drilling company. If the total value of the Santa Fe acquisition were classified as FDI in petroleum, then Kuwait would probably rank among the top four countries with FDI in U.S. petroleum.

The composition of additions to FDI in U.S. petroleum in 1983 was similar to most prior years, with the major share of additions to FDI accounted for by reinvested earnings (see Table 5). Reinvested earnings are earnings of the U.S. affiliate due the foreign investor less dividends declared. Reinvested earnings have dropped sharply, from \$2.2 billion in 1981 to \$0.8 billion in 1983. This decline is due to the decline in earnings of affiliates of \$1.3 billion between 1981 and 1983, together with an increase in dividends distributed to foreign owners from \$0.9 billion in 1981 to \$1.0 billion in 1983. Possible causes of increased dividend distributions include higher returns on U.S. portfolio investment relative to direct investment achievable through reinvestment of affiliates' dividends, increased demand for dollar holdings as the value of the dollar rises vis-a-vis other currencies, and cash withdrawals by European multinational companies during recessionary conditions.

The other source of additions to FDI shown in Table 5, equity and intercompany account capital flows, measures the investments and lending from the foreign parent to its U.S. affiliate on a net basis. Consequently, this source can be negative for the year if, for example, repayments by a U.S. affiliate to its foreign parent exceed the investments by the parent in the affiliate. This situation occurred in 1980 (see Table 5).

The data, shown in the table below, were taken from the U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (October 1984):

Year	Earnings	Distributed	Reinvested
	(п	illion dollars)	
1981	3,118	871	2,247
1982	2,241	1,240	1,002
1983	1,785	1,029	² 756

Table 4. OPEC Direct Investment in the United States, 1980-83

1980	1981	1982	1983
	(million	dollars)	
(^a)	(^a)	9	2
(a)	(a)	30 (a)	(^a)
110	122	204	230
300 26	373 2,654	551 (^a)	610 (^a)
642	3,335	4,047	4,058
	(^a) 51 (^a) 110 300 26	(million (a) (51 (4) (6) (10 110 122 300 373 26 2,654	(million dollars) (a) (b) (a) 9 (b) (a) (a) (b) (a) (c) (a) (a) (b) (d) (e) (e) (f) (f) (f) (f) (f) (f) (f) (f) (f) (f

^aData withheld to prevent disclosure.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (October 1984)

Table 5. Additions to Foreign Direct Investment in U.S. Petroleum, 1974-83

Year	Total Additions	Equity and Intercompany Account Capital Flows	Reinvested Earnings of Incorporated Affiliates	Valuation Adjustments
1974	822	431	431	-40
1975	599	79	520	0
1976	-292	410	538	-1,240
1977	653	52	601	0
1978	1,312	308	1,004	0
1979	2,144	499	1,645	0
1980	2,102	- 59	2,161	0
1981	2,993	861	2,247	-115
1982	2,426	1,424	1,002	1
1983	838	71	756	12

Note: Components may not sum to total due to independent rounding.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, <u>Survey of Current Business</u>, August issues, 1975-83 and October 1984.

3. Profile of Foreign-Affiliated Companies' Role in U.S. Energy Operations

Oil and Gas Reserves

Foreign-affiliated companies' share of U.S. crude oil and natural gas liquids (NGL) reserves declined somewhat from 1981 to 1982, and again from 1982 to 1983 At the end of 1981, crude oil and NGL reserves of foreign-(see Table 6). affiliated companies were 17 percent of U.S. total crude oil and NGL reserves. By the end of 1983, the share was 15.5 percent. The decline in foreign-affiliated companies' share between 1981 and 1982 is largely attributable to two developments. First, Standard Oil of Ohio (Sohio) reported a decline in crude oil and NGL reserves of 194 million barrels in 1982 due to a redetermination of company shares in the Prudhoe Bay field in Alaska. Second, E. I. du Pont de Nemours and Company (Du Pont) sold U.S. oil and gas reserves of their Conoco subsidiary in January 1983, but recorded these sales, totalling 61 million barrels, in their 1982 reserve balances. Exclusive of these two companies, the other foreign-affiliated companies' share of U.S. oil reserves increased slightly between 1981 and 1982. The decline in foreign-affiliated companies' share in 1983 appears attributable to their lesser performance in resource development. While these companies accounted for 16 percent of oil reserves at the beginning of 1983, they accounted for only 10 percent of gross reserve additions.

A similar pattern was evident for natural gas reserves. The foreign-affiliated companies' share of U.S natural gas reserves declined slightly over the 1981-83 span, from 8.8 percent in 1981 to 8.6 percent in 1983. Sohio and Du Pont's natural gas reserves were reduced by 457 billion cubic feet in 1982 due to the developments discussed above. The other foreign-affiliated companies' share of U.S. natural gas reserves remained unchanged between 1981 and 1982. Between 1982 and 1983, foreign-affiliated companies' share remained stable. However, as with oil reserves, they evidenced a disproportionately smaller share of gross reserve additions in 1983.

While foreign-affiliated U.S. enterprises played a minor, but not insignificant role in terms of U.S. petroleum reserves holdings in 1983, major U.S. energy companies continued to have an important position in foreign petroleum reserves ownership. Table 7 reports the foreign crude oil and NGL reserve interest held by the 26 major energy companies reporting to the EIA's Financial Reporting System (FRS), for 1982. It should be noted that a large portion of the foreign reserves held by FRS companies was removed from FRS companies' own accounts with the 100-percent takeover of the reserves owned by the Arabian American Oil Company (Aramco) by the Saudi Arabian Government in 1980. Nevertheless, foreign

Reserves and production data reported in this section are on a net basis and were compiled from company annual reports and the Security and Exchange Commission Form 10K.

²See Standard Oil Company (Ohio), Annual Report 1983, p. 53.

See E. I. du Pont de Nemours and Company, <u>Du Pont Annual Report 1983</u>, p. 42.

⁴See Energy Information Administration, <u>Performance Profiles of Major Energy Producers</u>, 1982 (July 1984), for detailed financial and operating information concerning FRS companies.

Table 6. Domestic Proved Oil (including Natural Gas Liquids) and Dry Natural Gas Reserves, Production, and Reserve Changes for Foreign-Affiliated U.S. Companies, 1982 and 1983

Fuel Type	Foreign-Affiliated Companies	U.S. Total	Foreign-Affiliated Share of U.S. Total
	h		(percent)
Crude Oil and Natural Gas Liqu	ids		
Proved Reserves			
12/31/81		36,494	17.0
12/31/82	5,592	35,079	15.9
1982 Production		3,671	14.1
1982 Gross Reserve Additions		2,256	NM
1982 Gross Reserve Additions	/Production NM	0.61	NM
Proved Reserves			
12/31/82	5.595	35,079	15.9
12/31/83	5.534	35,636	15.5
1983 Production		3,745	12.9
1983 Gross Reserve Additions		4,302	9.8
1983 Gross Reserve Additions		1.15	NM
Dry Natural Gas ^C			
Proved Reserves			
12/31/81	17 686	201,730	8.8
12/31/82		201,512	8.5
1982 Production	1.047	17,506	6.0
1982 Gross Reserve Additions	510	17,288	3.0
1982 Gross Reserve Additions		0.99	NM
Proved Reserves			
12/31/82		201,512	8.6
12/31/83	,17,138	200,247	8.6
1983 Production		15,788	5.8
1983 Gross Reserve Additions		14,523	5.3
1983 Gross Reserve Additions	/Production 0.84	0.92	NM

Reserves and production are on a net working interest basis.
Millions of 42-gallon U.S. barrels.

NM = not meaningful.

Source: Foreign-affiliated data are taken from companies' Form 10K filed with the Securities and Exchange Commission and Annual Reports to Shareholders. U.S. totals are from Energy Information Administration, U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves (November 1984).

crude reserve interests of FRS companies totalled 14.9 billion barrels in 1982, with OECD Europe, primarily the North Sea area, the leading major region in FRS companies' foreign reserves, followed closely by Africa.

CBillions of cubic feet, 14.73 psi, 60 degrees Fahrenheit.

About 87 percent of total FRS foreign countries' crude oil reserve interest was classified as net working interest reserves in 1982. This represented 2.7 percent of all free-world crude reserves outside of the United States, according to international crude oil reserve estimates reported in British Petroleum Company, BP Statistical Review of World Energy 1982. However, production of crude oil outside of the United States to which the FRS companies had direct access, either through own production or special purchase arrangements, totalled nearly 3.1 billion barrels in 1982, approximately 27 percent of total non-U.S. free-world production.

Table 7. Foreign Crude Oil and Natural Gas Liquids Reserve Interest for FRS Companies, 1982 and Percent Change from 1981

Crude Oil and Reserves	Total Foreign	Canada	OECD Europe	Africa	Mideast	Other Eastern Hemisphere	Other Western Hemisphere
				(million	barrels)		
1982 Total Crude and NGL Reserve Interest	14,887	2,058	4,394	3,752	2,085	1,675	923
				(perc	ent)		
Distribution, 1982 Total Crude and NGL Reserve Interest	100.0	13.8	29.5	25.2	14.0	11.3	6.2
Percent Change from 1981 Total Crude and NGL Reserve Interest	-2.5	2.2	0.8	-8.5	-2.3	-3.7	-0.3

^aThe components of total foreign crude oil and natural gas liquids reserve interest are net ownership interest reserves (87.2 percent) and "Other Access" reserves (12.8 percent). "Other Access" reserves include proportional interest in investee reserves and foreign access reserves.

Source: Energy Information Administration, Performance Profiles of Major Energy Producers 1982 (July 1984), p. 194.

Oil and Gas Production

Table 8 reports U.S. oil (including NGL) and natural gas production of identified foreign-affiliated U.S. companies for which U.S. production data were available (also, see Figure 4). In 1983, foreign-affiliated companies' share of U.S. crude oil and NGL production fell from 13.9 percent for the prior year to 12.9 percent. The drop in foreign affiliates' production was in part the result of the decline in Sohio's production attributable to the Prudhoe Bay redetermination. This latter development resulted in a decline of 76 thousand barrels per day, for all of 1983, in Sohio's production. Although the decline in Du Pont's oil production, due to their aforementioned sale of reserves in 1983, was not reported, their U.S. oil production declined by 19 thousand barrels per day in 1983 as compared to 1982. Exclusive of Sohio and Du Pont, the crude oil and NGL production of other foreign-affiliated companies increased 0.6 percent in 1983, nearly equal to the 0.5-percent increase for the United States in total.

The production of natural gas in the United States declined in 1983, largely in adjustment to high levels of natural gas storage relative to consumption. Foreign-affiliated companies' natural gas production declined slightly faster, reducing the foreign-affiliates' share of U.S. natural gas production from 5.9 percent to 5.8 percent in 1983.

⁶See Standard Oil Company (Ohio), <u>Annual Report 1983</u>, p. 49.

Table 8. Net Production of Petroleum and Dry Natural Gas in the United States by Foreign-Affiliated U.S. Companies, 1979-83

		Crude Oil a	nd Natural (Gas Liquids	A	Dry Natural Gas ^a					
Company	1979	1980	1981	1982	1983	1979	1980	1981	1982	1983	
		(thousand	barrels p	er day)			(b	illion cubi	c feet)		
Standard Oil of Ohio	611.0	715.8	717.3	693.7	613.2	29.4 ^b	29.1 ^b	30.7 ^b	33.1 ^b	34.9 ^b	
Shell 0il Co	480.7	511.0	514.0	520.5	523.3	666.1	651.2	664.3	607.0	539.0	
Du Pont	NF	NF	139.8	137.0	117.8	NF	NF	250.9	262.0	213.0	
American Petrofina	19.2	18.2	18.3	17.7	18.2	18.0	18.9	21.1	20.4	19.4	
Husky Oil	15.2	14.6	14.8	15.0	15.6	9.6	9.8	9.7	9.0	9.1	
W.R. Grace Co	10.6	11.5	11.6	11.2	10.0	32.3	37.2	36.9	34.7	29.4	
Total Petroleum (NA) Ltd	5.5	4.7	4.5	4.6	4.7	10.3	10.9	10.7	10.0	11.2	
Hiram Walker Resources	0.3	0.6	4.5	5.3	4.5	6.8	5.0	13.0	25.0	18.0	
Adobe Oil and Gas Corp	NF	NF	4.9	4.5	4.4	NF	NF	11.2	10.5	9.3	
Newmont Mining	NF	NF	3.8	4.7	4.0	NF	NP	14.8	15.4	10.7	
Bow Valley Industries	1,7	2.2	2.6	2.0	2.5	4.6	4.7	3.9	3.8	3.3	
Gulf Resources & Chemicals	NF	NF	NF	0.9	1.4	NF	NF	NF	5.8	10.2	
Hamilton Bros. Petroleum	NF	NF	NF	1.3	1.1	NF	NP	NF	5.6	4.4	
Other Companies	1,1	1.2	1.7	2.3	2.8	9,1	8.9	12.8	12.6	8.7	
Total Foreign Affiliated	1,145.3	1,279.8	1,437.8	1,420.7	1,323.5	786,2	775.7	1,080.0	1,054.9	920.6	
Total for United States ^c	10,136.0	10,170.0	10,181.0	10,199.0	10,247.0	19,663.0	19,403.0	19,181.0	17,758.0	15,972.0	
Percent Foreign Affiliated	11.3	12.6	14.1	13.9	12.9	4.0	4.0	5.6	5.9	5.8	

dry gas production.

NF = Not foreign-affiliated in years shown.

Note: Components may not sum to total due to independent rounding.

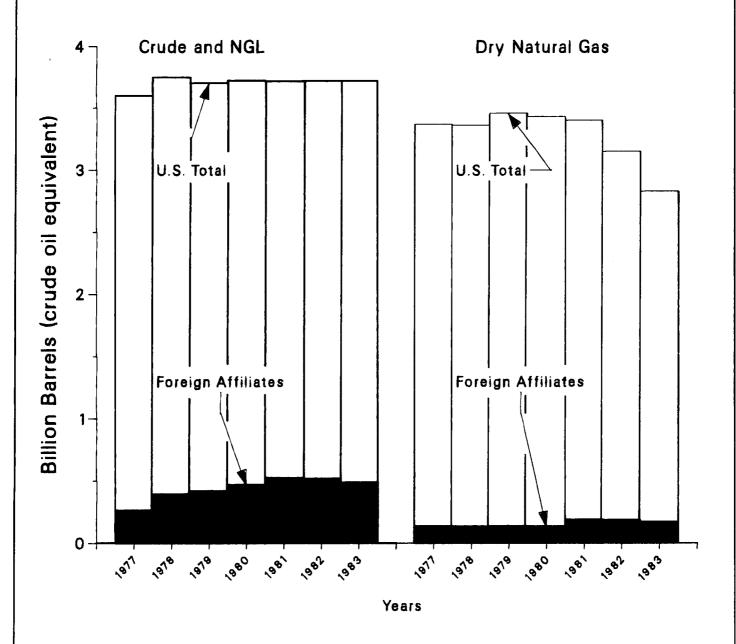
Sources: Form 10K reports to the Securities and Exchange Commission and Annual Reports to Shareholders. Totals for the United States are from the Energy Information Administration, Monthly Energy Review (August 1984).

^{*}Unless otherwise noted, company production is net working interest production.

Reported natural gas sales.

*Crude oil and NGL production is the sum of field production of crude oil and natural gas plant liquids. Natural gas production is total

Figure 4. Domestic Oil and Dry Natural Gas Production for Foreign-Affiliated U.S Companies



Refining and Gasoline Marketing

In recent years the share of U.S. refining capacity operated by foreign-affiliated companies increased even while overall U.S. refinery capacity was being reduced. Between 1980 and 1981, foreign-affiliated companies' share of U.S. crude distillation capacity increased from 11.1 percent to 14.5 percent (see Table 9). Since then, while overall capacity continued to fall, foreign affiliates shared in the reduction in U.S. refining capacity with the result that their share was little changed in 1983, at 14.5 percent.

With respect to U.S. affiliates abroad, Table 10 depicts the extent of involvement in foreign petroleum refining by major U.S. energy companies. About 17 percent of total non-U.S. free-world refining capacity was owned by FRS companies in 1982. By contrast, in 1979, over 20 percent of total foreign petroleum product output was attributable to FRS companies' foreign operations. Since 1979 the FRS companies have been reducing their foreign refining commitments, having divested themselves of 1,660 thousand barrels per day of crude distillation capacity abroad by 1983 which is a 20-percent decline. With respect to foreign affiliates' role in gasoline supply, Table 11 indicates that these companies' share continued to decline in 1983, to 15.4 percent. This table also indicates that foreign-affiliated companies' share of branded service stations increased from 17.9 percent to 19.0 percent between 1982 and 1983.

Coal Production

After rising sharply over the 1980-82 period, foreign-affiliates' share of U.S. bituminous and lignite production roughly stabilized in 1983, at 15.9 percent (see Table 12 and Figure 5). Between 1980 and 1981, foreign affiliates' share jumped from 3.9 percent to 12.9 percent. Of this increase, 87 percent was attributable to acquisitions of equity ownership by foreign investors and 13 percent stemmed from production increases of U.S. companies with prior foreign affiliation. In 1982, foreign affiliates' share again rose, to 16.2 percent, with 54 percent of the increase associated with new equity acquisition and the remainder coming from production increases of prior affiliated companies.

The foreign operations of FRS companies exclude those associated with non-U.S. based multinationals. For example, Shell Oil Co., Sohio, and American Petrofina are U.S. affiliates of foreign multinationals which report to the FRS. Only the operations of these U.S. affiliates are included in FRS data.

⁸Energy Information Administration, <u>Performance Profiles of Major Energy Producers</u>, 1983, Volume 2 (January 1985), p. 56.

⁹Based on information reported in <u>National Petroleum News (Fact-Book Issue)</u>, 1983. The Energy Information Administration ceased collection of service station count data with the 1981 reporting year.

¹⁰Based on data in Table 12 and in U.S. Department of Energy, Secretary of Energy, Annual Report to Congress (September 1984), p. 210.

Table 9. U.S. Refinery Operations of Foreign-Affiliated U.S. Companies, 1978-83

Company	Number of Refineries ^a					Total Crude Capacity ^a						
	1978	1979	1980	1981	1982	1983	1978	1979	1980	1981	1982	1983
								(thousand ba	rrels per o	lay)	
Shell 0il Co	8	8	8	8	7	7	1,136	1,136	1,136	1,162	1,092	1,005
Standard Oil of Ohio	3	3	3	3	3	3	452	452	452	452	456	456
Ou Pont	NF	NF	NF	8	7	7	NF	NF	NF	475	421	421
merican Petrofina	1	2	2	2	2	2	90	150	150	150	150	150
Total Petroleum (NA) Ltd	2	2	3	3	3	3	83	83	147	145	145	145
łusky 011 Co	3	3	3	3	2	2	60	60	60	65	54	54
ATC Petroleum	2	2	2	2	(b)	(^b)	25	25	25	25	(_p)	(b)
merican Ultramar, Ltd	NF	NF	NF	1	1	2	NF	NF	NF	17	17	34
letcher 0il & Refining	NF	1	1	1	1	1	NF	30	30	25	30	30
samera Oil Co. (U.S.)	1	1	1	1	1	1	23	22	40	39	26	26
iacMillan Ring-Free Oil Co	NF	NF	NF	2	2	2	NF	NF	NF	17	17	17
Golden Eagle Oil Co., Inc	1	1	1	1	1	(°)	17	16	16	16	16	(°)
Adobe Oil and Gas Co	NF	NF	NF	1	(b)	(b)	NF	NF	NF	8	(^b)	(_p)
ICG-Vista Petroleums	2	2	2	(^d)	(^d)	(^d)	10	10	10	(^d)	(^d)	(^d)
Cotal Foreign Affiliated	23	25	26	36	30	30	1,895	1,984	2,066	2,595	2,423	2,337
otal United States	311	319	324	301	258	247	17,441	17,988	18,621	17,890	16,859	16,137
ercent Foreign Affiliated	7.4	7.8	8.0	12.0	11.6	12.1	10.9	11.0	11.1	14.5	14.4	14

Refineries operable as of December 31st in each year. bShutdown.

Table 10. Foreign Refinery Output and Capacity Statisticsa for FRS Companies and Foreign industry, 1981 and 1982

	FRS	Foreign	FRS Percent
Refinery Statistics	Companies	Industry	of Industry
	(thousand barr	els per day)	
1981			
Refinery Output b	6,161	31,940	19.3
Percent Gasoline	22.0	18.5	23.0
Percent Distillate	34.7	28.7	23.3
	43.3	52.8	15.8
Percent Other	7,990	45,254	17.7
1982			
Refinery Output ^b	5,473	30,455	18.0
Percent Gasoline	24.3	19.3	22.6
Percent Distillate	33.9	30.5	20.0
	41.8	50.2	15.0
Percent Other	7.254	42,715	17.0

^aForeign FRS and foreign industry data exclude operations in Puerto Rico and the U.S. Virgin Islands, as well as China and the Soviet Bloc.

Total output of refined products, for FRS companies, is total output at own

Cincluded with American Ultramar, Ltd., after 1982.

Graduded with American Ultramar, Ltd., after 1982.

Graduded with American Ultramar, Ltd., after 1982.

Gradual Conversation Company (Flying J. Inc.) at the end of 1980.

NF = Not foreign affiliated during this period.

Source: Energy Information Administration, Petroleum Refineries Annual, 1978, 1979, 1981, Petroleum Supply Monthly, June 1982 for 1981

Data, and Petroleum Supply Annual, for 1982 and 1983 data.

refineries. Year-end capacity in thousand barrels per calendar day.

NA = Not available.

Note: Sum of components may not equal total due to independent rounding.

Source: Energy Information Administration, Performance Profiles of Major Energy Producers, 1982 (July 1984), p. 203, and International Energy Annual, 1983 (November 1984) pp. 32-33.

Table 11. Retail Gasoline Outlets and Total Gasoline Supplied by Foreign-Affiliated U.S. **Companies**, 1978-83

Company	1978	1979	1980	1981	1982	1983
		Tota	l Branded Se	rvice Statio	ns	
Shell Oil Co	16,985	16,559	15,403	13,700	12,282	12,147
Du Pont	NF	NF	NF	4,885	4,702	5,091
American Petrofina	3,498	3,315	3,082	3,211	4,201	4,037
Standard Oil of Ohio	4,109	4,361	4,071	3,552	2,200	2,100
Total Petroleum (NA) Ltd	73 2	965	1,926	1,893	1,797	1,863
Husky Oil Co	547	497	494	562	562	698
Asamera Oil Co. (U.S.)	NA	NA	114	110	93	28
Total for Above	25,871	25,697	25,090	27,913	25,837	25,964
U.S. Total ^a		,				
EIA	152,949	140,678	145,090	142,519	-	-
National Petroleum News	-	<u>-</u>	<u>-</u>	151,200	144,588	136,570
Percent of U.S. Total for Above						
EIA	16.9	18.3	17.3	19.6	-	-
National Petroleum News	-	-	-	18.5	17.9	19.0
			Total Gasol	ine Supplied)	
			(thousand ba	rrels per day	y)	
Total Foreign Affiliated ^C	1,006	948	926	1,114	1,092	1,022
U.S. Total ^a	7,412	7,034	6,579	6,588	6,539	6,622
Percent Foreign Affiliated	13.6	13.5	14.1	16.9	16.7	15.4

^aU.S. total for gasoline volumes represents total U.S. gasoline supply, as reported in the Energy Information Administration, Monthly Energy Review (August 1984). U.S. total for service stations represents the number of branded retail stations in operation at yearend from data presented in the Energy Information Administration,

Petroleum Market Shares Report, July 1981. These latter data exclude stations deriving less than 50 percent of revenues from gasoline sales. Total U.S. branded stations for 1981 is the July total. The Energy Information Administration stopped publishing outlet data in 1981. Station counts are taken from National Petroleum News

(Factbook Issue) beginning with 1982.
Gasoline Suppied refers to average daily gasoline shipments.

CDisaggregated company numbers are considered proprietary by the Energy Information Administration.

NA = Not available

NF = Not foreign affiliated during this period.

Sources: National Petroleum News (Factbook Issue), 1979-1984, for company station counts; Energy Information Administration, Form EIA-782c for company gasoline volumes.

Table 12. Coal Production and Source of Ownership of Foreign-Affiliated Coal Companies in the United States, 1981-83

	Foreign-Ownership	Coal Production ^a				
Controlling Company	Interest	1981	1982	1983		
		(1	chousand short t	ons)		
Consolidation Coal Co. (Du Pont)	JES Holding, Inc.	45,372	49,566	42,200		
A.T. Massey Coal Co	Royal Dutch Shell ^b	14,112	21,200	18,218		
Westmoreland Coal Co	Veba Kohle International	NF	8,310	13,592		
Standard Oil of Chio	British Petroleum	11,426	13,489	10,506		
Shell 0il Co	Royal Dutch Shell	4,017	5,842	7,010		
Bow Valley Coal Resources	Bow Valley Industries, Ltd.	3,484	4,545	4,617		
Enoxy Coal, Inc	Ente Nazionale Idrocarburi ^C	5,485	6,573	3,935		
Gulf Resources and Chemical	HCI Holdings, Ltd./Private Investor	NF	4,642	3,352		
W.R. Grace and Co	Flick Group	5,971	4,733	3,446		
Cannelton Industries, Inc	Algoma Steel, Ltd.	2,732	2,406	2,885		
Pyro Mining Co	Costain Group ^d	NF	3,208	2,700		
Ashland Coal Co	Saarbergwerke AG/Carboex	3,264	3,393	2,409		
Avery Coal Co	Trafalgar Industries	650	673	1,977		
AMCA Resources	(unidentified) Netherlands Antilles Group	1,725	1,725	1,926		
Roag Rohstoff und Verarbeitungs	Roag Rohstoff und Verarbeitungs	540	79	1,411		
Aquitaine Company of Canada	Aquitaine Company of Canada	1,939	1,499	1,342		
Steel Company of Canada	Steel Company of Canada	2,736	1,989	1,224		
Cannelton Industries, Ltd	Cannelton Industries, Ltd.	657	567	649		
Hudson Bay Mining and Smelting Co., Ltd	Hudson Bay Mining and Smelting Co., Ltd.	1,424	917	477		
Total Foreign Affiliated ^e		105,534	135,356	123,876		
Total United States		818,352	833,523	780,752		
Percent Foreign Affiliated		12.9	16.2	15.		

Coal production refers to lignite and bituminous coal production only.

Joint venture with Fluor Corporation.

Joint venture with Occidental Petroleum Corp.

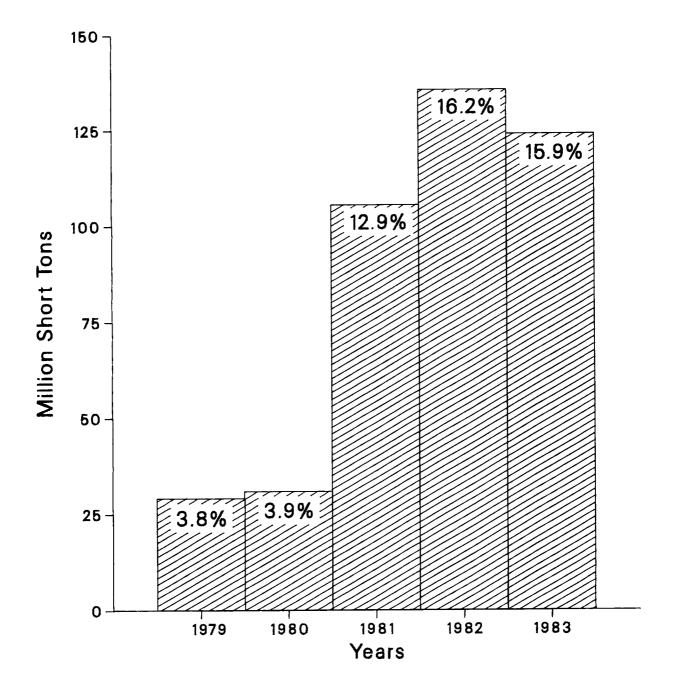
Joint Venture with Pyro Energy Corporation.

Coal production was not reported in the 1984 Keystone Coal Industry Manual for the following foreign-affiliated producers: Hawley Coal Mining Corp., Coal Corporation of America, Scotts Branch Co., and Husky Industries. In 1982, coal production of these companies totalied 1,495 tons.

NF = Not foreign affiliated during this period.

Sources: (coal ownership) Energy Information Administration, U.S. Department of Energy, Directory of Coal Production Ownership, 1979; Moody's Industrial Manual, 1979-83; U.S. Department of Commerce, International Trade Administration, Foreign Direct Investment Activity in the United States, monthly reports; (coal company level production data reported in Keystone Coal Industry Manual, "U.S. Coal Production by Company," 1981-83; U.S. total for coal production from the Energy Information Administration, Quarterly Coal Report (October 1984).

Figure 5. Coal Production and Share of U.S. Total Coal Production of Foreign-Affiliated U.S. Companies



In 1983, there were no new equity acquisitions of significant U.S. coal producers by foreign interests. Foreign-affiliated coal producers experienced a slightly sharper decline in production, 8.5 percent, than the 6.3-percent decline of the industry, as a whole, in 1983. For U.S. coal operations, the year was characterized by sluggish growth in demand (the sum of domestic coal consumption plus net exports was up by only 0.2 percent) despite general economic recovery, a 27-percent drop in (gross) coal exports, and encroachment by coal imports which, though relatively small, increased 71 percent. A number of coal producers sold, or attempted to sell, properties, while other companies effectively withdrew their commitments to coal production and development. Overall, the year 1983 was not one of heightened investment interest in coal.

Uranium Exploration

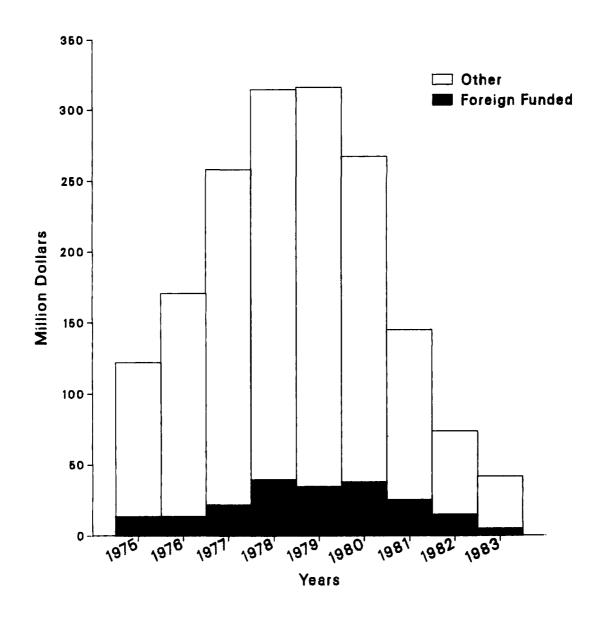
A continued diminished outlook for the future of the domestic uranium exploration and production industry in the United States is reflected in the 50-percent decline in U.S. uranium exploration expenditures from 1982 to 1983. This decrease follows the annual declines of 49 percent and 46 percent in 1982 and 1981, respectively (see Table 13 and Figure 6). The \$37 million spent on domestic uranium exploration in 1983 was the lowest total recorded since at least 1974, and was the fourth consecutive annual decline in expenditures. Foreign-affiliated companies showed an even sharper relative decline from 1982 levels of uranium exploration spending of 67 percent. As a result, their share of expenditures fell to 13 percent in 1983, after having generally risen from 8 percent in 1976 to 20 percent in 1982.

Table 13. Foreign Participation in Domestic Uranium Exploration, 1975-83

Year	Foreign-Funded Exploration Expenditures	Total U.S. Exploration Expenditures	Foreign Percent of U.S. Total	Number of Foreign-Affiliated Companies
	(million	dollars)		
1975	13.2	122.0	10.8	15
1976	13.2	170.7	7.7	15
1977	21.7	258.1	8.4	17
1978	39.3	314.3	12.5	31
1979	34.1	315.9	10.8	28
1980	37.6	267.0	14.1	28
1981	25.0	144.8	17.3	25
1982	14.6	73.6	19.8	14
1983	4.8	36.9	13.0	9

Source: Energy Information Administration, <u>Survey of U.S. UraniumExploration</u> Activity 1983 (July 1984).

Figure 6. Domestic and Foreign-Funded U.S. Uranium Exploration Expenditures



4. Financial Profiles and Transactions of Foreign-Affiliated U.S. Energy Companies

As noted in the first section of this report, the measures of FDI and associated income published by the Department of Commerce are designed to conform with the international transactions accounts. These measures are not designed to gauge the performance of foreign-affiliated U.S. companies from a financial reporting perspective. In this section, comparisons of corporate financial indicators between foreign-affiliated U.S. energy companies and other U.S. energy companies are presented. Aspects of corporate financial performance reported in this section include investment and growth, profitability, dividend payout, and asset structure.

Financial Profiles

Although the U.S. economic recovery that pervaded the year 1983 resulted in sizeable profit rebounds for many industries, energy industries, with the exception of coal producers, generally showed little or no earnings improvement from the prior year. Table 14 shows that profits for overall manufacturing made a considerable recovery in 1983, rising 10 percent after a decline of 44 percent Profits in energy industries continued to decline in 1983, by 4 The decline was considerably less steep than that experienced in 1982. Oil and gas producers experienced declines in production of natural gas, and crude oil production remained fairly stable in 1983. During the same year crude oil prices were generally below 1982 levels. Oilfield service and drilling firms were severely affected by the declines in exploration and development activity and falling prices for their services. Coal producers experienced production declines in 1983. Nevertheless, their overall profit performance improved in 1983 due to cost reductions and earnings recovery in lines of business into which they are diversified. Foreign-affiliated energy companies were more adversely affected by the events of 1983 than was the rest of the energy industry. 15 indicates that net income of foreign affiliates in U.S. energy declined almost 14 percent between 1982 and 1983, while net income of the energy industry comparison group remained unchanged.

Profit performance is generally evaluated in terms of rates of profit as well as level of profit. Table 15 presents an often-used profit rate measure, the ratio of net income to stockholders' equity. Profitability declined for both groups, although the decline was more pronounced for foreign affiliates, so that in 1983 there was little difference in this measure of profitability between the two groups of companies: 10.6 percent for the foreign affiliates versus 10.5 percent for the energy industry comparison groups.

The proportion of net income returned to shareholders in the form of cash dividends (the payout ratio) was slightly higher for U.S.-based energy companies than for foreign affiliates. Both groups tended to maintain dividends at prior-year

The financial information presented in this section was drawn from the consolidated financial statements contained in Standard Poor's Compustat data base and supplemented by information taken from Securities and Exchange Commission (SEC) Form 10-K and annual reports for foreign-affiliated companies not in the Compustat data base. The comparison group is composed of companies other than the foreign-affiliated companies on the Compustat file that are classified under the industry categories of crude oil and natural gas production, petroleum refining, oil field services, and bituminous coal and lignite production.

Table 14. Percent Change in Net Income and Return on Stockholders' Equity, 1982-83

Industries	Percent in Net	Change Income	Retur Stockholde		
	1982	1983	1982	1983	الم سند
		(percer	nt)		
Energy Industries					
Oil and Gas Production	-43.3	-24.6	11.3	4.1	
Integrated Petroleum Refining	-27.0	1.0	11.4	11.2	
Oilfield Drilling and Services	-14.9	-51.2	18.4	8.6	
Coal Production	NM	80.0	5.0	8.3	
Total Energy Industries	-27.9	-4.3	11.6	1 0. 7	1.4 11.1
All U.S. Manufacturing Corporations	-43.8 ^a	9.7 ^a	9.2	10.2 ^b	

^aPercent change in corporate profits after tax.

Source: Energy Industries - Compustat Industrial data base; corporate profits after tax for all U.S. manufacturing corporations - Department of Commerce, Survey of Current Business (July 1984), p. 79; return on stockholders' equity for all U.S. manufacturing corporations - Economic Report of the President 1984, p. 319.

levels. The result was that the foreign affiliates' payout ratio increased noticeably, since their earnings fell, while the U.S.-based energy companies' payout ratio hardly changed.

Investment outlays for both foreign affiliates and other U.S. energy companies declined sharply in 1983. Generally, exploration and development activity was much lower in 1983 than in the 1980-1982 period, while at the same time, costs for drilling and other related activity tended to fall. Additionally, development of coal and uranium resources diminished in 1983. The only domestic energy area showing increased investment interest in 1983 was acquisition of unproved oil and gas acreage stemming from increased State and Federal lease sales (this subject is discussed more fully in the next section). Largely as a result of these developments, 1983 capital outlays of foreign-affiliated energy companies declined 22 percent from the prior year and other energy companies registered a 28-percent decline (see Table 15).

Dependence on debt financing is a characteristic commonly considered in evaluations of companies' financial condition. A measure of relative debt financing is the ratio of long-term debt to stockholders' equity. The debt-equity ratio is a rough measure of companies' external debt obligations relative to the magnitude of ownership. Table 15 indicates that foreign-affiliated companies had a noticeably higher debt-equity ratio than did other energy companies. The ratio was 50 percent versus 39 percent in 1983. However, foreign affiliates have managed to reduce their debt considerably in recent years. These companies' debt-equity ratio has fallen from 69 percent in 1981, to 59 percent in 1982, to 50 percent in 1983.

The "current ratio," which is the ratio of current assets to current liabilities, is a measure of a company's relatively liquid assets (primarily cash, marketable securities, inventories, and accounts receivable) compared to its short-term liabilities (primarily accounts payable, short-term debt, and accrued tax liabilities). Table 15 indicates that foreign-affiliated U.S. energy companies' current ratio exceeded the current ratio of other U.S. energy companies in 1983.

b1983 figure is the average through the third quarter.

NM = Not meaningful.

Table 15. Selected Financial Information for Foreign-Affiliated U.S. Energy **Companies, 1982 and 1983**

0	Foreign-Affiliated U.S. Energy Companies			Energy I	Energy Industry Comparison Group ^b		
Category	1982	1983	Percent Change	1982	1983	Percent Change	
inancial Items	(b1111o	n dollars)		(billio	n dollars)	•	
Revenues	94.9	94.1	-0.8	704.9	656.9	-6.8	
Net Income	5.8	5.0	-13.8	25.7	25.7	0.0	
Capital Outlays	13.6	10.6	-22.1	87.3	63.3	-27.5	
Total Assets	100.9	102.7	1.8	563.7	566.9	0.6	
inancial Ratios			(percent)	, , , , , , , , , , , , , , , , , , , ,			
Return on Equity ^C	13.3	10.6		10.9	10.5		
Dividends/Net Income	42.3	52.0		53.0	53.7		
Debt/Equity ^d	58.6	50.4		41.3	39.4		
Current Ratio ^e	134.5	139.6		121.3	126.2		

^{**}Alrocludes incorporated U.S. energy companies which are foreign-affiliated and for which publicly reported financial information is available. Also included are foreign parent companies for which data for U.S. operations were not separately disclosed. For 1982, these companies were: **Adaba*** **Adaba***

Foreign Direct Investment Transactions in U.S. Energy Markets

This section presents a summary of equity acquisitions, mergers, joint ventures, lease acquisitions, and other transactions related to FDI activity in 1983. The transactions identified in this section were derived from a variety of public sources and do not necessarily reflect the confidential data submitted by foreign affiliates to the Department of Commerce, as reported in Chapter 2. However, the transactions reported in this section appear to be drawn from the most accurate information that is publicly available and should describe broad trends and developments in the composition of FDI in U.S. energy.

The largest share of 1983 FDI activity occurred in the petroleum industry, which accounted for 88 percent of the value of identified transactions (see Table 16). This is the highest share for petroleum evident in recent years, including 1981, when the Du Pont-Conoco merger transaction resulted in the foreign affiliation of Du Pont. Only one petroleum transaction involved gain of an equity interest in a U.S. company at a value in excess of \$100 million. This transaction involved the Canadian firm, Minerals Resources Corporation, who increased their equity ownership of Inspiration Resources Corporation for \$111 million.

Unlike the investment patterns evident in recent years, the bulk of expenditures was for property acquisitions in 1983. Table 17 shows that 56 percent of the value of identified FDI-related transactions were for property or lease acquisitions, while the comparable 1982 and 1981 shares were 11 percent and 17 percent, respectively. The heightened property acquisition activity reflected purchases of acreage of U.S. companies by foreign affiliates and acquisition of leases auctioned by Federal and State governments, particularly in Alaska and offshore.

Foreign investor interest in U.S. coal operations appeared to decline from recent years. Few equity acquisitions were reported in 1983. However, in 1984, a sizeable coal transaction occurred when Broken Hill Proprietary Company, Ltd., an Australian company, acquired Utah International, a coal-producing subsidiary of General Electric, for over \$2 billion. In 1983, the largest FDI-related transaction involving U.S. coal operations was a five-year contract for supply of coal by Armco, Inc., to Electricidade de Portugal valued at \$200 million.

The identified FDI-related transactions for 1983 are listed in Tables Al, A2, and A3 in the Appendix as are the information sources. Information for 1981 and 1982 FDI-related transactions is drawn from Appendix A of the U.S. Department of Energy Secretary's Annual Report to Congress (September 1983 and September 1984).

It should be noted that because the information utilized in this section can come only from public sources, validation is not always possible. The information presented in this section should be regarded, at best, as useful for discerning broad trends in the composition of FDI-related transactions.

³The acquisition of Santa Fe International by Kuwait Petroleum Corporation for \$2.5 billion in 1981 was excluded from the compilation because the Department of Commerce apparently classified this transaction as belonging to an industry outside of petroleum, even though Santa Fe International is a significant producer of oil and gas. If this transaction were included as a petroleum-related FDI transaction, then the share of FDI-related transactions accounted for by U.S. petroleum operations would be 86.0 percent in 1981 rather than 79.6 percent as shown in Table 16.

Table 16. Foreign Direct Investment Transactions by Industry, 1981-83

Industry	1981	1982	1983		
	(percent distribution)				
Petroleum	79.6	60.3	87.8		
Coal	20.2 0.2	32.4 7.3	11.3		
Total	100.0	100.0	100.0		

Source: See Appendix A

Table 17. Foreign Direct Investment Transactions by Type of Transaction, 1981-83

Type of Transaction	1981	1982	1983
	(percent distribution)		
Equity Acquisition	74.1 16.7 9.2 (a) 100.0	58.2 10.6 10.2 21.0 100.0	16.9 55.7 4.1 23.4 100.0

^aLess than 0.05 percent Source: See Appendix A

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	Appendix A Completed Foreign Direct Investment Transactions 1983

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Table A1. Completed Transactions by Size in the Petroleum Industry from January 1983
Through December 1983

	Illough Decembe	1 1300				
Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction		Date of Transaction
					(million) dollars)	
Petrofina SA (Belgium) (American Petro: Inc.)	Petroleum	Texas Oil and Gas Corp (Dallas, TX)	, Oil & Gas Production	Lease Acquisition	. 581.1	3-83
Government of United Kingdom ^a	NA			Oil & Gas Leases (Beaufort Sea, AK)	. 539.0	3-83
Government of United Kingdom ^a	NA	Sohio (Cleveland, OH)	011 & Gas Exploration	New Well	. 423.8	11-83
Minerals & Resource Corp. (Canada)	ces Holding Company	Inspiration Resources Corp. (Phoenix, AZ)	0il & Gas Production	Stock Acquisition	. 111.5	8-83
Ultramar PLC (United Kingdom	Oil Exploration &) Production	Pittston Petroleum (Greenwich, CT) (Pittston Company)	Natural Resources	Stock Acquisition	. 100.0	5-83
Kuwait Petroleum ((Kuwait) (Santa Fe Int'l)	Corp Oil Production	Amoco Oil Co (Chicago, IL)	Integrated Petroleum	Joint Venture	. 87.5	3-83
Royal Dutch Shell (Netherlands)	Integrated Petroleum			Oil & Gas Leases (Beaufort Sea, AK)	. 75.6	3-83
Government of United Kingdom ^a	NA			Oil & Gas Leases (Beaufort Sea, AK)	. 69.8	3-83
Canadian Occidenta Petroleum Ltd. (Canada)	al Oil & Gas Production	Cities Offshore Pro duction Co. (Los Angeles, CA)	Oil & Gas Production	Acquisition	. 66.4	11-83
Consolidated Gold Fields PLC (United Kingdom (Amcon Group Inc		Newmont Mining Corp (New York, NY)	Minerals/Oil Gas Exploration	Stock Acquisition	. 37.0	1-83

^aThe source was the U.S. Department of Commerce, International Trade Administration and it lists the government of the country involved; it is unclear which specific company performed the transaction.

NA = Not available.

^{--:} Not Applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1983 Through December 1983 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	(million	Date of Transaction
					dollars)	
Weeks Petroleum Ltd (Bermuda)	Production	Energy Minerals Corp. (Denver, CO)	Oil & Gas Production	Acquisition	. 34.0	11-83
Government of France	· NA			Lease Acquisition (AK)	. 33.2	5-83
Toyo Menka Kaisha Ltd. (Japan)	. Oil Marketing and Exploration	Powco 011 & Gas Inc. (Dallas, TX)	NA	Asset Acquisition	. 30.0	3-83
Selim K Zilkaet al (United Kingdom)	. Private Investors	Towner Petroleum Co. (Lorain, OH)	Oil & Gas Production	Acquisition	. 25.5	12-83
Crusader Oil(Australia)	. Oil & Gas Exploration	Triton Energy Corp. (Dallas, TX)	011 & Gas Production	Stock Acquisition	. 19.2	6-83
Belzberg Family (Canada)	. NA	Towner Petroleum Co. (Lorain, OH)	Oil & Gas Production	Equity Increase	. 16.0	3-83
Government of Canada	• NA	Synthetic Fuels Plant (Pittsburg, CA)	NA.	Joint Venture	. 14.2	6-83
Harvard International. Resources, Ltd. (United Kingdom) (Centipede Holdings, Ltd.)		Oceanic Exploration Co. (Denver, CO)	Oil & Cas Production	Stock Acquisition	. 11.8	10-83
Royal Dutch Shell (Netherlands)	. Integrated Petroleum		(Gulf of Mexico)	Lease Acquisitions	. 10.2	3-83
Government of					8.2	3-83
United Kingdom	• NA			Lease Acquisition (Gulf of Mexico)		
Caland Holdings N.V (Netherlands)	. NA	Trinity Resources, Ltd. (Housotn, TX)	Oil & Gas Production	Acquisition	. 8.0	5-83

a
The source was the U.S. Department of Commerce, International Trade Administration and it lists the government of the country involved; it is unclear which specific company performed the transaction.

NA = Not available.

^{--:} Not Applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1983 Through December 1983 (continued)

Acquiring Company (Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million) dollars)	Date of Transaction
Tricentrol PLC (United Kingdom)	Oil and Gas Production	N A	NA	Lease Acquisitions (Montezuma City, CO		3-83
Royal Dutch Shell (Netherlands)	Integrated Petroleum			Lease Acquisitions	7.6	3-83
First Houston Oil & Minerals, Ltd. (Canada) (RAN Energy, Inc.)	Oil Exploration	Southwest Petrochem, Inc. (Houston, TX)	Oilfield Equipment Manufacturers	Stock Acquisitions	7.6	5-83
Thomson Family (Canada)	NA	NA	NA	Lease Acquisitions	6.5	1-83
British Petroleum (United Kingdom) (Sohio Petroleum Co.)	Petroleum	Freeport-McMoran Inc (New York, NY)	Oil & Gas Production	Oil & Gas Leases	6.5	3-83
Weeks Petroleum Ltd (Bermuda) (Weeks Exploration Co.)	Oil & Gas Production	Energy Minerals Corp (Denver, CO)	Oil & Gas Production	Acquisition	6.4	6-83
Imperial Continental Gas Association (United Kingdom)	Holdings & Investments	Amcana Oil Corp (Tulsa, OK)	Oil & Gas Production	Acquisitions	5.1	5-83
Texas Energy, Ltd (United Kingdom)	Oil & Gas Exploration	Isle Resources Inc (Dallas, TX)	Oil & Gas Production	Joint Venture	5.0	3-83
Royal Dutch Shell (Netherlands)	Integrated Petroleum	NA	NA	Lease Acquisition	4.8	7-83

NA = Not available.

^{--:} Not Applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1983 Through December 1983 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
Caland Holdings N.V (Netherlands)	. Holdings & Investments	American Well Servicing Corp. (Dallas, TX)	Well Servicing, Drilling	Acquisition	. 4.8	9-83
First Houston 011 & Minerals, Ltd. (Canada) (RAN Energy, Inc.)	Oil Exploration	Rebel Minerals Inc (Houston, TX)	Oil & Gas Exploration	Stock Acquisition	, 4.0	5-83
Vitol Trading Trust NV (Netherlands Antilles)	Investments	Excel Energy Corp (Denver, CO)	Oil & Gas Production	Lease Acquisition	. 3.5	1-83
Royal Dutch Shell (Netherlands)	. Integrated Petroleum			Lease Acquisitions (Beaufort Sea, AK)	. 3.3	3-83
Royal Dutch Shell (Netherlands)	. Integrated Petroleum	NA	NA	Lease Acquisition	. 3.1	3-83
Bronfman Family (Montreal, Canada)	. NA	Conoco, Inc	Petroleum Products	Plant Expansion	. 2.8	1-83
Det Norske Oljeselskap A.S. (Norway)	. Oil & Gas Production	NA	NA	Joint Venture	. 2.5	6-83
British Petroleum PLC (United Kingdom)		Barringer Resources Inc (Denver, CO)	Oil & Gas Exploration Technologies	Asset Acquisition	. 2.0	4-83
Bronfman Family (Canada)	. NA	Deca Energy Corp (Denver, CO)	Oil & Gas Production	Lease Acquisitions (Summit County, UT)	. 2.0	3-83
Royal Dutch Shell (Netherlands)	. Integrated Petroleum			Lease Acquisitions (Beaufort Sea, AK)	. 1.8	3-83

NA = Not available.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

^{--:} Not Applicable.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1983 Through December 1983 (continued)

Acquiring	Acquiring	Affected	Affected	-76	Size of	Date of
Company	Company Activity	Company	Company Activity		ransaction million	Transaction
				·	dollars)	
United Kingdom Temperance & General Provident Institution (United Kingdom) (Petrotech Inc.)	Holdings & Investments	Kulka & Schmidt Inc (Okemos, MI)	Oil & Gas Production	Asset Acquisition		8-83
Shadowfax Resources Ltd. (Canada)	NA	Clay Resources Inc (Parkersburg, WV)	Oil & Gas Production	Acquisition	1.2	8-83
Government of United Kingdom a	NA			Lease Acquisitions (Prudhoe Bay, AK)	1.1	3-83
Royal Dutch Shell (Netherlands)	Integrated Petroleum			Lease Acquisitions (AK)	1.1	5-83
Royal Dutch Shell (Netherlands)	Integrated Petroleum			Lease Acquisitions (Prudhoe Bay, AK)	1.0	3-83
Government of United						
Kingdom ^a	NA			Beaufort Sea	1.0	5-83
Hambros PLC(United Kingdom)	Holdings & Investments	Hart Exploration & Production Co. (Englewood, CO)	011 & Gas Production	Stock Equity Increase	1.0	12-83
Government of United Kingdom	NA.			Lease Acquisitions	1.0	3-83
Government of United				(LA)		
Kingdom ^a	NA			Lease Acquisitions	1.0	5-83
Khalid Bin Faud Al Faisal (Saudi Arabia)	Private Investor	Taurus Oil Corp (Denver, CO)	Oil & Gas Production	Stock Acquisition	0.5	3-83

The source -- U.S. Department of Commerce, International Trade Administration -- lists the government of the country involved; it is unclear which specific company performed the transaction.

NA = Not available.

^{--:} Not Applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1983 Through December 1983 (continued)

1	Acquiring Dany Activity	Affected Company	Affected Company Activity	Type of Transaction 1	Size of ransaction	Date of Transaction
					(million dollars)	
Bronfman Family	NA			Lease Acquisitions (Gulf of Mexico)	0.3	3-83
Bronfman Family (Canada)	NA			Lease Acquisitions (Gulf of Mexico)	0.2	3-83
United Kingdom Temperance & General Provident Institute (United Kingdom)	Holding and Investments	Petrotech, Inc (St. Clair, MI)	011 & Gas Production	Stock Equity Increase.	0.2	3-83
Bronfman Family	NA			2 Beaufort Sea Lease Acquisitions (AK)	0.2	5-83
Royal Dutch Shell (Netherlands)	Integrated Petroleum			Lease Acquisitions (St. Maria Basin, CA		3-83
Britoil PLC(Scotland)	NA	Amerada Petroleum Corp (New York, NY)	Oil & Gas Production	Joint Venture	NA	4-83
H.P. Brawner Ltd. et al (United Kingdom)	Private Investor	Universal Fuel Co (Denver, CO)	Oil & Gas Production	Acquisition	NA	6-83
Government of United Kingdom	NA	Sohio	Oil & Gas Production	New 0i1 Well	NA ••	10-83
Wilhem Wilhelmsen (Norway)	Water Transpor- tation	Argosy Offshore Ltd (Lafayette, LA)	Oil & Gas Production	Joint Venture	NA	10-83
Royal Dutch Shell (Shell Petroleum N.V.) (Netherlands)	•	Cressler-Neuchatel (Gulf Oil Corp.) (Pittsburg, PA)	NA	Stock Acquisition	NA	2-83

The source -- U.S. Department of Commerce, International Trade Administration -- lists the government of the country involved; it is unclear which specific company performed the transaction.

NA = Not available.

^{--:} Not Applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1983 Through December 1983 (continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
Royal Dutch Shell (Netherlands)	Integrated Petroleum	Shell Oil Company (NJ)	Oil & Gas Production	New Well	NA	12-83
Government of United Kingdom	NA	Amerada Petroleum Corp.	011 & Gas Production	Lease Acquisitions	NA	12-83
Southern Pacific Petroleum (Australia)	0il & Gas Production	Phillips Petroleum Oil Shale Leases (KY)	Oil & Gas Production	Lease Acquisition	NA	8-83
Royal Dutch Shell (Netherlands)	Integrated Petroleum	Aminoil USA-Shell Joint Venture, (Tulsa, OK)	011 & Gas Production	Joint Venture	NA	2-83
Government of United Kingdom	NA	Sohio Petroleum - Weyerhauser J.V. (OK)	Oil & Gas Production	Joint Venture	NA	1-83
Clarion Finanz (Switzerland)	Holdings and Investments	J. D. Allen Industries Inc. (Oklahoma City, OK)	Oil & Gas Production	Acquisition	NA	1-83
Lava Cap Resources Ltd (Canada)	. Oil & Gas Produc- tion & Explora- tion	Yelco Resources Inc.	NA	Acquisition	NA	1-83
American Resources Cor (Bermuda)	p. NA	Pagurian Corp.	Oil & Gas Exploration	Acquisition	NA	2-83
C. G. Doris (France)	Offshore Engineer- ing, Design & Construction	Fluor Engineers, Ocean Services Div. (Irvine, CA) (Fluor Corp.)	Oil,& Gas Production	Joint Venture	NA	5-83

The source -- U.S. Department of Commerce, International Trade Administration -- lists the government of the country involved; it is unclear which specific company performed the transaction.

NA = Not available.

^{--:} Not Applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1983 Through December 1983 (continued)

Acquiring Company Co	Acquiring mpany Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction	Date of Transaction
Lazard Securities Ltd. (United Kingdom) (Minder Oil & Gas Inc.)	Oil & Gas Production	Centura Energy Corp. (Houston, TX)	Oil & Gas Production	Merger	(million dollars) NA	4-83
Sherwood Exploration Ltd (United Kingdom)	. Oil & Gas Exploration	Aracca Petroleum Corp. (New York, NY)	Oil & Gas Production	Joint Venture	NA	7-83
Barrick Resources Corp. (Canada) (Barrick Exploration Co.)	Oil & Gas Exploration	Tarex Inc. (Houston, TX)	011 & Gas Exploration	011 Lease Purchase	NA	10-83
Inter-Continental Minerals & Petroleum Ltd. (Luxembourg)	Oil & Gas Production	Salem Resources Inc. (Ferry, PA)	Oil & Gas Exploration	Stock Acquisition	NA	4-83
Norcen Energy Resources (Canada)	Oil & Gas Production & Exploration	Hanna Petroleum Co. (Hanna Mining Co.) (Cleveland, OH)	Mining/Oil & Gas Production	Joint Venture		6-83

NA = Not available.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

^{--:} Not Applicable.

Table A2. Completed Transaction by Size in the Coal Industry from January 1983 Through December 1983

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million	Date of Transaction
Electricidade de Portugal (Portugal)	Government Elec- tric Utility	Armco, Inc. (Middletown, OH)	Coal Production	Long-Term Contract	dollars) 200.0	2-83
Alan Clore (United Kingdom)	Private Investor	Gulf Resources & Chemical Co. (Houston, TX)	Mining & Fertilizer	Stock Equity Increase	se 37.1	3-83
Government of United Kingdom ^a	NA	Reserve 011 & Minerals Corp. (Albuquerque, NM)	Oil & Gas Produc- tion/Mining	Acquisition	18.9	3-83
Burnett & Hallamshire Holdings PLC (United Kingdom)	Holdings & Investments	PBS Coals Inc. (Friedens, PA)	Coal Mining	Acquisition	10.0	7-83
Korean Electric Power Corp. (Korea)	Government Elec- tric Utilities	Suneel Alaska Corp. (AK)	Coal Mining	Coal Contract	NA	3-83
Lurgi Kohle Und Mineraloeltechnik (West Germany)	Coal Technology	Stone & Webster Engineering Corp. (Boston, MA) (Stone & Webster, Inc.)	Design & Construction Service	Joint Venture	NA	8-83
Campbell Resources Inc. (Canada)	Holdings & Investments	Beasley Energy Inc. (Columbus, OH)	Coal Mining	Acquisition	NA	11-83
Tatabanya Szenbanyak (Hungary)	Engineering/ Manufacturing	Island Creek Coal Co. (Paintsville, KY)	Coal Production	Joint Venture	NA	12-83

The source -- U.S. Department of Commerce, International Trade Administration -- lists the government of the country involved; it is unclear which specific company performed the transaction.

NA = Not available.

^{--:} Not Applicable.

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Table A3. Completed Transactions by Size in Other Energy Industries from January 1983
Through December 1983

Acquiring	Acquiring	Affected	Affected	Type of	Size of	Date of
Company	Company Activity	Company	Company Activity	Transaction	Transaction (million	Transactio
					dollars)	
Costain Group Ltd. (United Kingdom) (Pyro Energy Corp.)	Engineering/Mining	Nucorp. Energy Inc. (Uranium Resources Inc.) (San Diego, CA)	Natural Resources	Stock Acquisition	0.5	2-83

Note: Transactions include acquisition, joint ventures, and other combined activities. Dates may reflect a publication date rather than an actual transaction date.

Sources used in compiling the information in Tables A-1, A-2, and A-3 include:

- 1. Announcements of Mergers and Acquisitions. The Conference Board.
- 2. The Cambridge Report on Corporate Mergers and Corporate Policy. Cambridge Corporation Publishers.
- 3. Coal Mining and Processing. MacLean Hunter Publishing Corporation.
- 4. "Foreign Direct Investment Activity in the U.S.," International Trade Administration, U.S. Department of Commerce.
- 5. Mergers and Acquisitions: The Journal of Corporate Venture.

 Information for Industry.
- 6. The New York Times.
- 7. The Oil & Gas Investor. Hart Publications.
- 8. "SEC News Digest," U.S. Securities and Exchange Commission.
- 9. The Wall Street Journal.

*U.S. GOVERNMENT PRINTING OFFICE: 1985-461-195:10159

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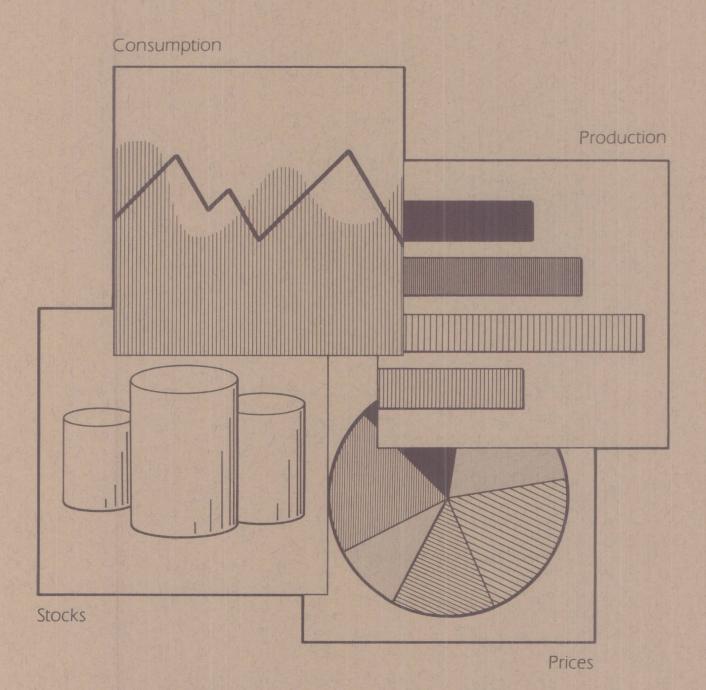


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DOE/EIA-0206(83)/1

GPO Stock No. 061-003-00422-9

Appendix E was incomplete as printed. Attached pages precede page 159 in your copy of the publication.

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Appendix E Accounting Practices

This appendix describes some of the more important accounting topics and issues. A familiarity with topics and issues is very helpful, and sometimes essential, in using the FRS data.

Relation of FRS to Generally Accepted Accounting Principles

In completing the FRS form, with one exception noted below, companies use the same generally accepted accounting principles that they use in their financial statements filed with the Securities and Exchange Commission and in their annual report to shareholders. Therefore, the amount and timing of income recognized and the capitalization policies will be the same, and net income in FRS will agree in total with that reported in each company's public financial statements.

However, in FRS the presentation of the details of financial and statistical data will usually differ somewhat from that presented by most individual companies because current reporting standards do not require standardized functional line-of-business segments with standardized financial statement line items. In FRS, such standardization is necessary because of the aggregation of a large number of companies. Subsequent sections of this appendix discuss some of the conventions adopted by the FRS.

FRS Petroleum Supply and Trading Function

In establishing the FRS functional lines-of-business for reporting the activities of vertically integrated enterprises, it was necessary to define a set of trading rules. These rules define which segment can sell what to whom. Otherwise, the segment data would be inconsistent across companies.

FRS defines the following segments within petroleum (These segments are the main components of the 5200 series schedules.)

Domestic Production
Domestic Refining/Marketing
Rate Regulated Pipelines
Foreign Production
Foreign Refining/Marketing
International Marine (Transportation)

A few of the more noteworthy rules are as follows:

- 1. Transfers (sales) between segments of the same company are recorded at the equivalent of arm's-length market prices. Where there are no comparable arm's-length transactions, field posted prices may be used. If third party realizations for specific raw material streams are below posted prices, the same lower prices should be used to value internal movements of those raw materials.
- 2. All crude produced is recorded as a sale by the respective Foreign or Domestic Production segments to the corresponding Foreign or Domestic Refining/Marketing segments. The production segments are not permitted

to sell crude directly to third parties but instead transfer it to the company's refining/marketing segments which then make the sale to the third parties. Companies that do not have foreign refining and import all foreign purchase may deviate from this practice and sell directly to domestic refining/marketing.

- 3. Crude purchase from third parties is reflected as a purchase by the appropriate refining/marketing segment: Foreign Refining/Marketing for foreign source crude and Domestic Refining/Marketing for domestic source crude. Foreign source crude destined for a U.S. refining segment is then recorded as a sale by the Foreign Refining/Marketing segment to the Domestic Refining/Marking segment.
- 4. Although production segments are neither sellers to, nor purchasers of, crude from third parties by FRS convention, natural gas may be both purchased and sold by production segments.
- 5. All transportation costs are incurred by the purchasing segment. Therefore, when Domestic Refining/Marketing purchases crude from Foreign Refining/Marketing, the Domestic Refining/Marketing segment incurs the cost of transport.
- 6. With regard to sales to third parties, an export sale is a sale shipped free on board (f.o.b.) destination to a foreign location. In contrast, if a sale is made f.o.b. to a domestic location, it is considered a domestic sale even though the goods may ultimately be shipped overseas by a third party who purchased the goods.
- 7. A domestic purchase is a purchase made from domestic sources, even though in the case of goods purchased from domestic third parties, the materials purchased may be of foreign origin. Such purchases are designated as domestic in FRS, because the point of purchase, and not the country of production, is the determining factor.

The above rules are intended to make the trading patterns of each FRS reporting company comparable to those of the other companies.

Nontraceables and Eliminations

One of the objectives of the FRS is to allow economic and financial analysis of the energy industry to be performed, as much as possible, by function. These functions, referred to in FRS as "segments," are intended for presentation as separate entities with their own income statements. They will reflect sales and purchases not only to and from unaffiliated parties, but also to and from other segments. Because the segments are, in actual fact, not separate entities, but are part of an integrated firm, two special classifications are defined which allow reconciliation of consolidated company figures with those of the segments. The first is the nontraceable classification, which covers those items included in the consolidated financial statements but not allocated to the segments. The

second is the eliminations classification, which is necessary to prevent double counting of intersegment transactions when the segments are consolidated into total company figures.

The purpose of the nontraceable classifications is to capture assets, liabilities, revenues, and expense items, etc., which exist only in the corporate context and cannot reasonably be attributed to the activities of a segment. In the FRS data, this classification reflects general overhead for the consolidated firm and financial transactions which represent corporate level activities. It should be noted that the financial transactions may play a key role in the firm's ability to do business, but because of their fungible nature, such transactions are not allocated to activities in a single segment. The cash and investment accounts in the balance sheet, and the interest income and expense accounts in the income statement, are the best examples of this. The accompanying example illustrates a nontraceable item, interest expense of \$20, and the \$10 corresponding tax effect (see "FRS Segment Tax Allocation Rules" in this appendix for further explanation).

The need for the eliminations classification arises when the product of one segment is sold to a second segment, which in turn sells the product again. In the accompanying example, \$80 of crude is sold by the Domestic Production segment of a petroleum company to the Domestic Refining/Marketing segment of the same company. The Refining/Marketing segment records \$80 of purchases of crude and, after processing, reflects sales of \$160 of refined product. If the segment figures were simply added to arrive at the consolidated total, the consolidated sales figure of \$240 (\$80 + \$160)\$ would be too high because of double counting. Thus, the eliminations classification is created to subtract \$80 of sales and \$80 of costs, leaving consolidated sales of \$160, the appropriate measure of the firm's consolidated transactions.

The nontraceables and eliminations classifications are treated like pseudosegments for purposes of aggregating segment data to the consolidated level.

Example of Nontraceables and Eliminations:

		Consolidated	Elimination	Non- Traceable	Refining/ Marketing	Production
Revenues	•	. 160	(80)	_	160	80
Less Expenses: General and						
Administrative		. 10	_	2	5	3
Other Operations .		. 10	-	_	5	5
Crude			(80)	_	80	-
Operating Income Less Interest	•	. 140	-	(2)	70	72
Expense		. 20	-	20		_
Less Income Taxes .			_	(11)	35	36
Net Income	•	. 60	-	(11)	35	36

Note: Numbers in parentheses are negative.

FRS Income Taxes

FRS Segment Tax Allocation Rules. In FRS, each segment reflects a pro-rata share of consolidated income taxes. Where the consolidated company has income and pays a tax, but an individual segment has a loss, the segment with a loss reflects a negative tax. This treatment is an FRS rule and its purpose is to reflect at the segment level the effect of the segment's operations on the consolidated taxes. The negative taxes, reflected at the segment level, are limited to that which the consolidated group can use. Thus, if the consolidated group has an overall loss and therefore cannot save any taxes through a particular segment's losses, that segment will not reflect any negative tax. Negative taxes at the segment level are recorded only to the extent that they offset positive taxes on a consolidated basis.

In comparing an FRS company segment to a specialized (nonintegrated) company in the same line-of-business, one must keep the above described rule in mind. The tax effect will be different, for a specialized company cannot actually pay a negative tax. It must carry the loss forward, or backward, against profits of other years, while a segment of an otherwise profitable consolidated firm can show a negative tax by FRS conventions since its loss can offset profits in other segments. Hence, it has a negative contribution to consolidated taxes.

FRS Reporting Companies, Segments, and Tax Paying Entities. This section explains how FRS reporting companies and their individual line-of-business segments differ from the entities which actually pay income taxes. The FRS is designed to report energy activities on a consolidated company basis, disaggregated into various energy lines-of-business. Accordingly, income tax expense, current and deferred, is reflected on a line-of-business basis. However, under the tax laws, taxes are not necessarily based upon FRS reporting company consolidated earnings, of the FRS line-of-business segments.

The tax-paying entities of an FRS reporting company are its subsidiaries. Some are incorporated in the United States and some in foreign countries, and each may operate in the United States, foreign countries, or both. Income tax expense in the FRS consists of both domestic and foreign income taxes incurred by these subsidiaries. Taxes reflected by the consolidated company and each individual segment are allocated from taxes paid and deferred by the actual tax-paying entities.

Under United States tax law, U.S. income taxes are not required to be paid by foreign corporations on their foreign operations. Only earnings of foreign corporations earned in the United States or paid into the United States as dividends to the U.S. parent corporation (owner) are taxed by the United States. Foreign and domestic earnings of U.S. corporations, including divisions and branch operations, are taxed by the United States. All income subject to U.S. tax, whether the entity is a foreign or domestic corporation, is given the benefit of the foreign income tax credit (up to the statutory rate) to avoid double taxation. Each U.S. incorporated subsidiary of a U.S. corporation elects to either be included in a consolidated U.S. tax return or to file a separate return, depending on which election is most likely to minimize the aggregate domestic and foreign taxes. The main point to be made here is that corporate organization and relationships are not purely a function of line-of-business financial reporting. This fact requires that allocations be made of taxes incurred so that they can be classified according to the FRS segment format.

These allocations are required when a subsidiary is involved in both U.S. and foreign operations and/or in more than one line of energy business. For example, the FRS has separate segments for the foreign and domestic chemical business, as it also does for the foreign and domestic refining/marketing business. Therefore, if an FRS reporting company has a foreign subsidiary involved in both refining/marketing of petroleum and chemicals, a disaggregation of that subsidiary's activities, including income taxes, must be performed.

The disaggregation is further complicated by the existence of nontraceable items such as interest. In making the tax allocation, the nontraceable column must be treated as a line-of-business segment. Therefore, interest expense, which is quite large for most companies, is classified in the nontraceable columns and, accordingly, should generate negative U.S. and foreign income taxes for the nontraceable segment.

In conclusion, an understanding of how taxes affect the operations of a particular line-of-business cannot be obtained simply by looking at the tax expense associated with an FRS segment. An indepth study of taxation of a line-of-business must consider the various available forms of corporate organization (the tax-paying entities) and the method of financing (interest expense).

Deferred Taxes

Under GAAP, there must be a matching of revenues with associated expense in the appropriate year. A firm's income statement, including pre-tax income, is calculated using GAAP. A firm's tax return, and hence income for tax return purposes (taxable income), is calculated based on the tax laws. The differences between GAAP and the tax laws regarding what and where to recognize income and expenses leads to one figure for taxable income and another for GAAP income. The difference may be broken down into: (1) timing differences and (2) permanent differences. Deferred taxes are provided in the financial statements to compensate for the timing differences. This is described more fully below.

An example of a timing difference is depreciation. Under GAAP the straight line method is often used for financial statement purposes, whereas for tax return purposes, an accelerated rate method is permitted by the tax laws. Under accelerated rates, more depreciation is taken in the earlier years of an asset's life than under the straight line method. This has the effect of showing a higher tax return depreciation during the earlier years of the asset's life. Hence, taxable income will be less than GAAP pre-tax income. The opposite relationship will be true during the final years of the asset's life, and hence, the timing difference "turns around."

In the context of the earlier years of the asset's life in the above example, a deferred tax expense is provided on the difference between the straight line and the accelerated rate depreciation figure. The income statement treatment for this is to reflect the amount actually payable to the Internal Revenue Service (IRS) that year as a "current tax" and the tax on the timing difference as a "deferred tax." Assuming all other factors of income tax are constant, in the final years of subject asset's life, the current taxes will be higher relative to the earlier years and the deferred taxes will be negative. Total tax expense

will be the same each year for the entire life of the asset, which is the objective of the deferred tax accounting rules.

Reflecting Ownership in Aramco

In 1980, the government of Saudi Arabia acquired a beneficial interest in substantially all of the assets and operations of Aramco. Aramco continues to have access to a significant volume of Saudi Arabia crude oil. As a consequence, the former Aramco partners no longer have a proportional ownership interest in Aramco reserves. However, the Aramco partners still maintain access to Saudi crude production through marketing agreements.

Prior to 1980, the equity method was used by all four FRS reporting companies in presenting their interest in the financial statements included in their annual reports to shareholders, although the details of the presentation differ somewhat from company to company. In the 1978 issue of Performance Profiles, the equity in Aramco earnings was reflected as a reduction in the cost of crude acquired by the Foreign Refining/Marketing segment. This had the effect of offsetting each company's Aramco earnings against their cost of crude acquired from Aramco at the prevailing purchase price.

In the 1979 issue of Performance Profiles, Aramco was reflected in the FRS on the equity method. That is, the investment and earnings from Aramco were reported on a one-line basis. Prior years were restated to this basis. Likewise, purchases of crude oil, production of crude oil, and interests in reserves were all reflected under the "unconsolidated affiliate" captions.

Corporate Acquisitions

The key topics in the section are: (1) the accounting for mergers — purchase method versus pooling of interest method; (2) the portion of new investment attributable to transactions between FRS reporting companies; (3) accounting for internal growth versus growth by acquisition.

Under FRS reporting rules, no acquisitions are accounted for under the pooling of interest method. This is because under the pooling method, the financial statements do not reflect such transactions as new investment, since the historical financial statements are restated. One of the objectives of the FRS is to track new investment activities.

For FRS reporting purposes, acquisitions accounted for as poolings for annual report purposes must be reflected in the FRS filing under a modified purchase method. All purchase accounting rules are followed, except that the assets of the acquired company are not revalued, but are recorded at their book values as stated on the acquired company's books.

Therefore, the FRS balance sheet at year's end will agree with the reporting company's annual report, but the income statement will not. Activities of the acquired company are only reflected in the consolidated financial statements of the acquiring company for the period of time it is owned. Also, the balance

sheet accounts of the acquiring company as of the date of acquisition appear in the appropriate captions of the acquiring company's funds statement as sources and uses of funds, or working capital.

The growth of FRS reporting companies, like other industrial enterprises, is brought about by management both internally and through the acquisition of other enterprises and individual properties. The FRS schedules at this time do not attempt to distinguish growth through acquisition and merger from internal growth. New investment of funds are classified by line-of-business and functionally within each line-of-business. For example, all additional investment in producing petroleum properties are classified together, and are not separated according to whether a going corporation came with them or whether only the property was purchased.

Full Cost and Successful Efforts Accounting Methods

At this time, petroleum producing companies reporting to the Securities and Exchange Commission, which include all FRS reporting companies, are permitted to choose between two accounting methods—"full cost" and "successful efforts". The two methods differ from one another in the treatment of the cost of dry exploratory holes.

Under full cost, the cost of a dry exploratory hole is capitalized and then amortized to the income statement over the production life of successful wells, which is to say it is spread over many future years. Thus, the capitalized costs of both dry and successful wells are reflected in the balance sheet as part of producing properties.

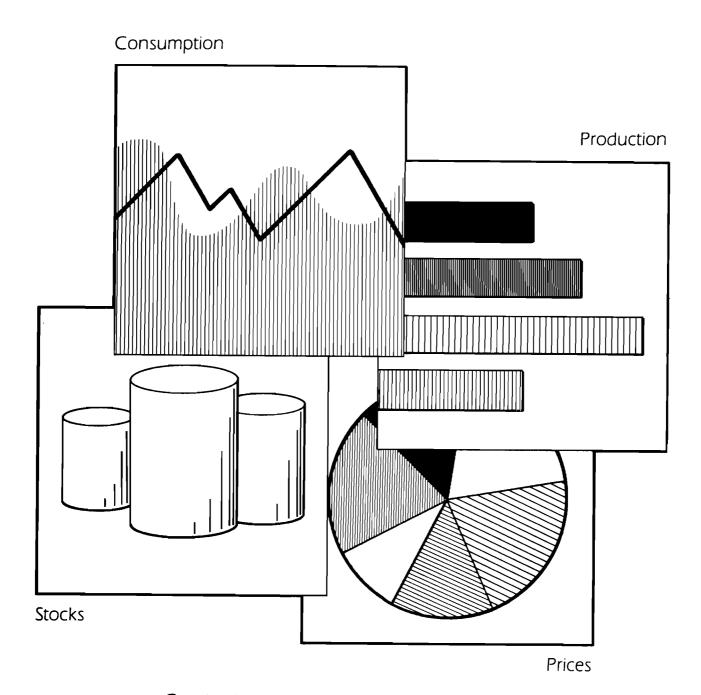
Under successful efforts, the cost of a dry exploratory hole is written off to expense in the year drilling is determined to be unsuccessful. There is then no capitalized cost of such dry exploratory holes carried on the balance sheet.

In comparison to the successful efforts method, the full cost method will: (1) show less volatility of earnings, since the cost of unsuccessful wells is amortized over many years; (2) show a higher balance in accumulated property, plant, and equipment (PP&E), since the account contains the costs of all wells drilled, including dry exploratory wells; (3) usually show higher earnings during years of intense exploratory activity when a number of dry wells are encountered; and (4) show the same cumulative earnings over a long period of years, since eventually all costs will be amortized to the income statement. These effects are minimized if the firm is large, since the exploratory activities of a large firm are usually smaller relative to total production operations than they are in a small production firm.

Usually one cannot determine the precise effect of using one method over the other. However, one large firm switched from full cost to successful efforts in 1975 and restated 1973 and 1974 data to the successful efforts method. So we have available the impact of this conversion on their comparative net income, net PP&E, and return on net PP&E for 1973 and 1974 (see text table).

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